## Butterflies in Eastern Switzerland 1979

By Dr. C. J. Luckens\*

The three of us, J. M. Chalmers-Hunt, T. W. C. Tolman and C. J. Luckens, set off from Calais at about midnight on July 3rd and due to some enthusiastic driving by one of the

trio we were well south of Reims by first light.

A stop to stretch our legs at around 8.30 a.m. near Vitry revealed the first butterflies of the trip, roosting in the dewladen grass — Mellicta athalia Rott., Melanargia galathea L., and Polyommatus icarus Rott. Our destination for that evening was Pontresina, in the Swiss Engadine. As we had also planned to stop at Weesen, east of Zurich en route, we

had to press on through the hot, sunny morning.

We approached our intended stop beside the Walensee at around 3 p.m., just as the sun became obscured by clouds gathering over the hills to the south. This locality was famous at one time for the two marshland *Maculinea* species, that in their early larval stages feed on *Sanguisorba*. We started looking for the damp meadows described by numerous authors, but things had evidently changed, even since 1960 when R. F. Bretherton and the late Baron de Worms were there, and most of the ground surrounding the lake consisted of parkland and reseeded fields.

Suddenly, however, J. M. C.-H. spotted a female Maculinea nausithous Berg. at rest on a Sanguisorba head in a most unlikely spot beside the river. This wanderer encouraged us to continue to look, and after a considerable search we found an area where there were a few fresh Maculinea teleius Berg. — mostly at rest. But by this time the weather had broken up, it was getting late, and we were forced to bring our di-

gression to a close.

In the chill of the evening we pitched camp at Pontresina after driving through a minor snowstorm on the Julier Pass, but by 8.30 a.m. the following day the weather cleared, and

we set off for the Val Roseg.

This superb valley commences opposite Pontresina at about 6,000 feet, and extends through alpine pastures and scattered woodland to the high peaks surrounding the Tschierva and Roseg Glaciers. Horse carriages run from the station at Pontresina to the Roseg Hotel in the upper part of the valley, but apart from these the whole area is closed to wheeled vehicles. On our first day we started walking from the lower end towards the Roseg Hotel, and almost immediately encountered the dominant *Erebia* species — *E. euryale* Esp. flying along with the little *Coenonympha gardetta* de Prunn.

As the temperature rose butterflies became more numer ous. Colias phicomone Esp. flew at high speed over the steep slopes, accompanying the only slightly slower Boloria pales D. & S. and B. napaea Hoffmann. Pieris napi bryoniae Ochs.

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favoured the marshier spots, and everywhere among woods and pastures flitted the two Melitaeas M. phoebe D. & S., and M. diamina Lang. The 'blues' were mainly represented by Cyaniris semiargus Rott. but T.W.C.T., who invariably walked further and climbed higher than the other two, found several colonies of Albulina orbitulus de Prunn. A small marsh with large stands of Gentiana lutea produced single specimens of Maculinea alcon D. & S. and Paleochrysophanus hippothoe L., and further on, a stony slope with wild geranium growing among the rocks held flourishing colonies of Eumedonia eumedon Esp. and Maculinea arion L. Single specimens of the latter, however, were found not uncommonly all along the valley. Among the skippers two species were common — Pyrgus serratulae Ramb. and P. cacaliae Ramb. In the woodland clearings however, Carterocephalus palaemon Pall, and a few Hesperia comma L. were noted. It seemed strange, even allowing for the somewhat flexible flight season of the Alps, to find these two skippers flying together when in lowland Northern Europe their emergence times are usually separated by at least two months.

One of the species we particularly wanted to find was Euphydryas intermedia wolfensbergeri Frey., and in the early afternoon J. M. C.-H. and C. J. L. found a clearing where one or two of these butterflies were flying — all males and in fair condition. After 3.30 p.m. at this altitude insect activity seemed to diminish sharply, though some species such as the ubiquitous Clossiana euphrosyne L., C. gardetta and Erebia pandrose Bork. continued flying until about 4.30. On the way back down the valley J.M. C-H. casually picked a mint male Pontia callidice Hubn. off a flower head under the very nose of C. J. L., who was sitting down contemplating

his sore feet.

Continuing fine weather on the following morning encouraged us to investigate the Albula Pass around 8,000 ft. above Samedan. As we parked the car at the top of the pass we immediately encountered P. callidice once again. "Flies furiously over difficult ground" is the vivid and obviously firsthand description of this butterfly's habits in R. F. Bretherton's Distribution List; we certainly found that this held true on the Albula, though several specimens were obtained, by energetic running in some cases and sheer good fortune in others. A few Oeneis glacialis Moll. were found at the top of the pass, with good numbers of the high altitude Pyrgus andromedae Wall. and P. cacaliae and, rather surprisingly at this level, C. euphrosyne. Absent, however, was the much-desired Mellicta asteria Frey. C. J. L. took a single male Erebia pluto de Prunn. among scree, but at the cost of an unfortunate stumble, which tipped his rucksack over his head and showered about seventy pillboxes down the mountainside! By this time, as we were descending the north side of the pass, the weather had deteriorated disappointingly. Beside a stream we found a strong colony of Parnassius

phoebus F. however, and during the sporadic spells of sunshine the males flew so commonly that it was possible to see six or seven without moving from one spot. A few A. orbitulus and the odd specimen of Erebia gorge Hubn. and E. pharte

Hubn, were about in the same place.

Over this steep and rocky terrain J. M. C-H. proved himself a fast and somewhat reckless runner. As soon as *phoebus* or *callidice* was sighted, he would set off downhill at an impressive rate, bounding over the boulders as if they did not exist; and though there were a few spectacular falls he rarely missed his butterfly! The long tiring trek back to the car at the top of the pass was undertaken in persistent drizzle.

July 7th found us once again in the Val Roseg, where the weather was very hot in the morning but became cloudier by mid-afternoon. Once again present were most of the species we had seen two days earlier, but several new Lycaenid species turned up as single examples. Among these were fresh specimens of Vacciniina optilete Knoch., Aricia artaxerxes allous Hbn., Aricia nicias Meig., and Philotes baton Berg. Around lunchtime all three of us found ourselves on a rockstrewn slope near the floor of the valley about two kilometres from Pontresina. C. J. L. netted a small Erebia in long grass, which turned out to be a rather worn Erebia flavofasciata Heyne — about 2,000 feet too low and almost exactly mid-way between the two very local colonies known in this area, i.e. the Schaffberg, immediately east of Pontresina, and the Tschierva at the head of the Val Roseg. A wanderer of this species (which usually confines itself very closely to its chosen locality) was surely unlikely so far from either of these known colonies, so presumably there mhst be other sites for flavofasciata on the northern slopes of the Val Roseg. This probability seemed to be confirmed an hour or so later, when, a further 500 metres along the valley and several hundred feet higher up under the cliffs, T. W. C. T. shouted to the others that he had seen another flavofasciata at rest on stunted alders. Unfortunately it flew over a ravine before he could net it. His two colleagues climbed the steep hill side in record time, but an extensive search failed to turn up any more of this scarce Erebia.

A small colony of *E. mnestra* Hbn. was discovered, however, in the limited area under the precipitous cliffs. A little lower down in the same area there were a few *E. tyndarus* Esp. of the typical form, and single examples of

E. melampus Fuessl.

The following day, the 8th of July, started very disappointingly as we re-traced our original journey over the Julier Pass toward Zurich. It was very cloudy and there were heavy showers as we reached the scene of our previous endeavours beside the Wallensee. We set about searching for the two *Maculinea* species, but had very little success finding them at rest until there were a few spells of watery sunshine,

and then both *M. nausithous* and *M. teleius* flew reluctantly. The latter species was definitely more common, and we saw over thirty during the day, many of them worn. Of *nausithous* we saw less than a dozen, though the weather was definitely against us. Odd examples were noted of other species, such as *Brenthis ino* Rott., *C. semiargus* and *Maniola jurtina* L. and *Aphantopus hyperantus* L. was fairly common.

The next day, back at Pontresina, the weather still showed no signs of clearing at 10 a.m., so we decided to try to find the sun on the south side of the Bernina Pass. On our way over the Bernina we passed some very promisinglooking ground, but conditions were so cold and dull that it seemed pointless to stop. We made a brief halt beside the lake at La Prese, where T. W. C. T. netted E. medusa D. & S., but little else apart from M. athalia and C. coenonympha arcania L. could be persuaded to lift themselves from the wet grass. We finally found the sunshine on a mountain slope above Campascio, on the Swiss-Italian border. We took a steep and narrow road with a horrendous drop on one side, which eventually deposited us among flowery terraced meadows looking out over the valley about a thousand feet below us. These alpine pastures were bathed in sunshine and full of butterflies. although the surrounding hills and the valley itself remained under sombre cloud. A few Parnassius apollo L., in a magnificent form with large red spots. floated about over the stonier slopes in company with some superb M. arion, of the form obscura Christ, though larger and bluer than those in the Val Roseg. There were also several Heodes virgaureae L., M. athalia, C. arcania, Argynnis aglaia L. and E. ligea L. Single specimens were noted of Aporia crataegi L., Meltaea didyma Esp., Lasiommata maera L. and C. phicomone. Melanargio galathea L. was swarming everywhere. We left this delectable spot at about 3 p.m. and, crossing the Italian frontier, we started the ascent of the Aprica Pass. Here we saw several large black and white Nymphalids sailing about near the road. Eventually T. W. C. T. briefly captured on of these, a large male Apatura iris L., which unfortunately slipped from his net. The west side of the Aprica also held Leptidea sinapis L., one or two fresh Issoria lathonia L. and large numbers of small Mellicta. It was hoped that some of these might be Mellicta aurelia Nick., but genitalic dissection has so far revealed only athalia. We stopped again on the east side of the Pass and collected in a swampy hayfield. Here we found more I. lathonia, athalia and numbers of A. crataegi at rest on knapweed heads. T. W. C. T. found Melitaea cinxia L. and P. hippothoe, and C. J. L. took a rather worn skipper which, on dissection, turned out to be Pyrgus alveus Hbn. C. J. L. also found a wriggling Nymphaline pupa which he fondly hoped might be Nymphalis antiopa L., but to his chagrin, three weeks later it produced a not entirely unexpected N. io. On our return to the frontier we found a full-scale row in progress. Cars were queued up

on the further side but the customs officers were ignoring them in order to concentrate their efforts on the noisy dispute taking place among themselves. It was a truly magnificent show, and we were slightly disappointed when another customs

official appeared and impatiently waved us through.

We boarded the horse bus at 9.45 the next morning intending to make an early assault on the Pic Tschierva. On arrival at the hotel an hour later we set off straight away for the higher levels. J. M. C-H. and C. J. L. kept mainly to the track which wound up the south side of the valley to the slopes above the Tschierva Glacier. T. W. C. T. got diverted en route by clearings near the upper limits of the pine woods. Here he found the first Clossiana thore Hbn. and some stronger colonies of E. intermedia before climbing above the tree line on the north-facing slopes where C. palaemon occurred to at least 7,000 ft. Meanwhile, along the main track the other two encountered numbers of O. glacialis and the two alpine Boloria. Nearly every time there was a rock fall to be crossed Erebia gorge Hbn. appeared flitting over the unstable boulders. Netting this little butterfly was a hazardous business however. Higher up near the glacier the lovely vivid Euphydryas cynthia D. & S. was flying vigorously in the hot sun and there were also one or two Euphydryas debilis Oberth. beside the path. These latter butterflies were extremely difficult to come to terms with as their dull colouration blended perfectly with the beige turf and in flight they seemed to disappear every few seconds. Erebia pandrose Bork, P. callidice and P. cacaliae were fairly numerous at this level also.

We decided to climb up the steep hillside above the track to nearly the base of the cliffs and cast around for the elusive *E. flavofasciata*. The sun went in for a second or two just as a small *Erebia* fluttered into the grass at the feet of C. J. L. It was quickly secured and was a freshly emerged male *flavofasciata*. To salute the event three Alpine Choughs sailed over in line abreast calling musically. J. M. C-H., higher up on a scree slope had found *E. pluto* and *E. gorge* and had taken one of the former and several of the latter by cunningly waiting beside a small, flowery patch in the midst of the rocks, which these butterflies seemed to find irresistable. On hearing of the capture of the other *Erebia*, he quickly descended to quarter the ground with C. J. L., but sadly no more *flavofasciata* were forthcoming.

The weather remained fine all day, and even at this high level butterflies were still flying as we started our return journey at about 4.30 p.m. It was a long weary trek back to the valley entrance seven miles away, but our minds were occupied by the memorable day we had spent among these

high solitudes of the Tschierva.

The aforementioned capture of thore by T. W. C. T. decided the venue for July 11th. J. M. C-H. and C. J. L. took the horse bus direct to the Roseg hotel to search for

this fritillary, while T. W. C. T. was keen to look for alcon in the small marsh halfway up the valley and elected to walk the whole way. C. thore was found to be locally common in rocky clearings in the upper half of the valley, and one particularly good spot was found where this darkly-patterned

fritillary flew in excellent numbers.

At around 2 p.m. T. W. C. T. appeared with two species new to our list in his collecting boxes. Clossiana titania Esp. was emerging in several places along the valley, and, as well as capturing imagines, he had found pupae and a newly suspended larva of this species. In addition he had taken a fresh Fabriciana niobe L. and netted and released one or two worn alcon. J. M. C-H. and T. W. C. T. decided to try the slopes above the Tschierva Glacier in a last search for flavofasciata while C. J. L. went off to look for intermedia, but at this stage the skies clouded up and it became cold and

unproductive.

On our last day in Switzerland, the 12th of July, the wet, cloudy weather continued, but we decided to look at the Albula Pass anyway. There were a few blinks of sun when we stopped a little way down the north side of the Pass and thrashed about among the wet vaccinium bushes. A few P. andromedae and B. pales were noted and a single fresh female callidice. J. M. C-H. was seen in full flight after a male Colias palaeno L. which he caught up with, only to see his quarry escape from a fold of the net. We halted briefly lower down near Preda, but the rain had started in earnest, and the only find was a female C. palaemon on a Aquilegia head. As we approached the Wallensee the sun came out and we could not resist a last look at the marsh near the lake. Two female nansithous were noticed at rest on the Sanguisorba, and one or two teleius of ragged aspect flew in the evening sunshine.

Beyond Zurich we ran into a heavy thunderstorm and the rain continued as we drove through the night. At daybreak it was no less wet, and we were forced to cancel our plans to look at a chalk hillside near Reims. So ended ten highly enjoyable and mainly successful days in the Swiss Alps.

## References

Bretherton R. F. 1966. A Distribution List of the Butterflies of Western and Southern Europe. Trans. Soc. Brit. Ent. Vol. 17.
Bretherton R. F. and de Worms, C. G. M. 1961. Pontresina 1960.
Ent. Rec. 73: 44-48.

Chapman T. A. 1901. Notes on Lepidoptera observed on a visit to the

Engadine in 1900. Ent. Mon. Mag. 37: 130-136.

Fison, A. J. 1915. Notes on Swiss Rhopalocera. Ent. Rec. 27: 103-109. Haig-Thomas, P. The More Local Butterflies of Switzerland. Ent. Rec. 39: 159-161, 165-167.

Harris, H. G. and Scott, E. 1939. Weesen and Pontresina. Ent. Rec. 51: 20-23.

Higgins, L. G. 1975. Classification of European Butterflies. Collins. Higgins, L. G. and Riley, N. D. 1970. A Field Guide to the Butterflies

of Britain and Europe. Collins.

Warren, B. C. S. 1923. Six weeks among the Butterflies of Eastern Switzerland. Ent. Rec. 35: 73-79, 96-101.

Wheeler, G. 1903. Butterflies of Switzerland and the Alps.